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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,862	04/06/2006	Michael J. Puyia	017191.0049	5494

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EXAMINER	
WEN, SHARON X	
ART UNIT	**PAPER NUMBER**
1644	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,862	PUGIA ET AL.	
	Examiner	Art Unit	
	Sharon Wen	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-12,14-23,26 and 29-36* is/are pending in the application.

4a) Of the above claim(s) *1 and 3-11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12,14-23,26 and 29-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Art Unit location of the examiner of this application in the PTO has changed. To aid in the correlating any papers for this application, all further correspondence regarding this application should be directed to Sharon Wen, Group Art Unit **1644**, Technology Center 1600.

2. Applicant's amendment, filed 07/26/2007, has been entered.

Claims 12, 14-17, 19, 23 and 26 have been amended.

Claims 33-36 has been added.

Claims 2, 13, 24, 25, 27 and 28 have been canceled.

Claims 1, 3-12, 14-23, 26, 29-36 are pending.

Claims 1, 3-11 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Invention, there being no allowable generic claim.

Claims 12, 14-23, 26 and 29-36 are under consideration as the elected invention that reads a method of assaying a biological fluid for urinary trypsin inhibitor (UTI) with a monoclonal antibody.

3. Text of those sections of Title 35 U.S.C. not included in this Action can be found in a prior Action.

This Action will be in response to Applicant's Arguments/Remarks, filed 07/26/2007.

The rejections of record can be found in the previous Office Action.

Election/Restrictions

4. Applicant's arguments regarding the Restriction Requirement not being proper have been fully considered but have not been found convincing essentially for the reasons of record stated in the Restriction Requirement, mailed 01/19/2007, and the previous Office Action mailed 04/27/2007.

The requirement is still deemed proper and is therefore made FINAL.

Specification

5. Applicant's amendments to the specifications filed 04/06/2006 and 07/26/2007 have been acknowledged.

Priority

6. Given the 371 status of the instant application, amendments that introduce New Matter made to the international application after commencement and entry into the U.S. national phase will not be considered in a U.S. national stage application. See MPEP 1893.01(a)(3).

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent application, PCT/US04/24881 or provisional application, USSN 60,511,835). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed provisional application, USSN 60,511,835, and international application, PCT/US04/24881, fail to provide sufficient written support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for the newly added limitations, "having no cross-reactivity to P-α-I and I-α-I pro-inhibitors" (claims 12 and 26) and "without cross reactivity to THP and the pro-inhibitors P-α-I and I-α-I" (claims 33 and 35).

The newly added limitations mentioned above, in Applicant's amendment, filed 07/26/2007, were not clearly disclosed in the provisional applications, USSN 60,511,835, and international application, PCT/US04/24881, and would have changed the scope of the prior-filed applications.

It appears that Applicant relies upon the a generic description of the monoclonal antibody 421-3G5 "binding to all UTIs and Tamm-Horsfall protein, but not to the pro-inhibitors" as disclosed in the specification as-filed on page 6 to support the newly added claim limitations reading on the antibody not binding to the pro-inhibitor species, P-α-I and I-α-I.

However, neither the priority applications nor the instant application have provided a sufficient description of a representative number of species to represent the entire genus of "pro-inhibitor" or a genus of antibodies that do not bind to all the pro-inhibitor species.

It cannot be said that a subgenus is necessarily described by a genus encompassing it and a species upon which it reads. See *In re Smith* 173 USPQ 679, 683 (CCPA 1972) and MPEP 2163.05.

Therefore, reliance upon the genus of "pro-inhibitors" and the disclosure of the "antibody not binding pro-inhibitor" in a general context does not provide sufficient written description for the newly added claim limitations as mentioned above.

In addition, the new limitations mentioned above appears to be negative limitations. Adding the expressed exclusion of certain elements implies the permissible inclusion of all other elements not so expressly excluded. This clearly illustrates that such negative limitations do, in fact, introduce new concepts. See *Ex parte Grasselli*, 231 USPQ 393 (BPAI 1983).

Furthermore, it is noted the Preliminary Amendment, filed 04/06/2006, introduces New Matter to the specification as-filed. In addition, it is also noted the Preliminary Amendment, filed 04/06/2006, appears to be inconsistent with the specification as-filed in the international application, PCT/US04/24881. (See detailed discussion in ***Objection to Specification*** below)

For a more complete discussion, see the rejection under 35 USC 112, first paragraph, New Matter and objection to the specification below.

Should Applicant disagree with the Examiner's factual determination above, it is incumbent upon Applicant to provide a showing that specifically supports the instant claim limitations.

Claim Rejections - 35 USC § 112, second paragraph

7. The previous rejection under 35 U.S.C. 112, second paragraph, regarding the recitation of "strongly detected" and "binds strongly", omitting essential steps, and insufficient antecedent basis has been withdrawn in view of Applicant's amendments, filed 07/26/2007.

8. Claim 12 and 14-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Applicant's arguments, filed 07/26/2007, have been fully considered but have not been found convincing essentially for the reasons of record.

Claim 19 is indefinite in the recitation "defined herein" because the recited immunoassay acronyms are defined in the specification not in the claims. The term "defined herein" suggests the acronyms are defined in the present claims. Therefore the metes and bounds of the claim are rendered indefinite.

Applicant's arguments have not been persuasive.

This rejection is **maintained**.

B. Claims 12 and 14-23 are indefinite in recitation of "preferentially bound". The term "preferentially bound" is not defined by the claim and the specification does not provide a standard for ascertaining the requisite degree of binding, and one of ordinary skill in the art would not be reasonably apprised of the metes and bounds of the binding between the antigen and antibody encompassed by the present claims.

This New Ground of Rejection is necessitated by Applicant's amendments, filed 07/26/2007.

C. Applicant is reminded that any amendment must point to a basis in the specification so as not to add New Matter. See MPEP 714.02 and 2163.06.

Claim Rejections - 35 USC § 112, first paragraph

9. The previous Written Description and Enablement rejections under 35 U.S.C. 112, first paragraph, have been withdrawn in view of the cancellation of the claims in Applicant's amendments, filed 07/26/2007.

10. **The New Grounds of Rejection set forth herein are necessitated by Applicant's amendment.**

The following is a Written Description / New Matter rejection. Given the 371 status of the instant application, amendments are not permitted to introduce New Matter into the application. See MPEP 1893.01(a)(3).

Claims 12, 14-23, 26 and 33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Currently the amend claims and newly added claims contain new matter in the recitation of "having no cross-reactivity to P-α-I and I-α-I pro-inhibitors" (claims 12 and 26) and "without cross reactivity to THP and the pro-inhibitors P-α-I and I-α-I" (claims 33 and 35).

Applicant's amendment, filed 07/26/2007, contains new matter that has been added with the amended claims and newly added claim. However, the specification as-filed, does not provide sufficient written description for the above-mentioned limitations.

Upon reviewing of the application as-filed, the written support or the literal recitation of the newly added limitations mentioned above is not readily apparent.

It appears that Applicant relies upon the a generic description of the monoclonal antibody 421-3G5 "binding to all UTIs and Tamm-Horsfall protein, but not to the pro-inhibitors" as disclosed in the specification as-filed on page 6 to support the newly added claim limitations reading on the antibody not binding to P-α-I and I-α-I pro-inhibitors.

However, the specification as-filed does not appear to provide a sufficient description of a representative number of species to represent the entire genus of pro-inhibitor or the entire genus of antibodies that have not cross-reactivity to all the species of pro-inhibitors.

Applicant's reliance on generic disclosure and possibly a single species does not provide sufficient direction and guidance to the claimed limitation as mentions above having the features currently claimed.

In addition, the recitations of "having no cross-reactivity" or "without cross reactivity" appear to be negative limitations. Adding the expressed exclusion of certain elements implies the permissible inclusion of all other elements not so expressly excluded. This clearly illustrates that such negative limitations do, in fact, introduce new concepts. See *Ex parte Grasselli*, 231 USPQ 393 (BPAI 1983).

Furthermore, it appears that Applicant relies upon the preliminary amendment, filed 04/06/2004, to support the newly added limitations. However, the preliminary amendment also introduced New Matter into the disclosure. (see complete discussion below)

The specification as-filed does not provide written description or set forth the metes and bounds of the above-mentioned phrases. The specification does not provide blazemarks nor direction for the instant antibody encompassing the above-mentioned limitations as they are currently recited. The instant claims now recite limitations which were not clearly disclosed in the specification as-filed, and now change the scope of the instant disclosure as-filed. Such limitation recited in the present claims, which did not appear in the specification, as-filed, introduce new concept and violate the description requirement of the first paragraph of 35 U.S.C. 112.

Applicant is required to cancel the new matter in the response to this Office Action.

Alternatively, Applicant is invited to provide sufficient written support for the limitations indicated above. See MPEP 714.02 and 2163.06.

Objection to Specification

11. The preliminary amendment, filed 04/06/2004, is objected to under 35 U.S.C. § 112 first paragraph and § 132 because it introduces New Matter into the disclosure. 35 U.S.C. § 132 states that no amendment shall introduce New Matter into the disclosure of the Invention.

In response to Applicant's request to confirm that the specification has been amended in the Examiner's file, the following is noted:

The preliminary amendment, filed 04/06/2005 introduces subject matter which changes the scope of the application as-filed. In particular, the disclosure of the antigen-specificities of the antibodies has been changed, supposedly to reflect the data of Table 3 and 4. However, with regard to the antigen-specificities of the antibody 421-3G5, results disclosed on Table 3 and 4 appear to contradict each other; according to Table 3 there is no interaction between this monoclonal antibody and bikuinin.

Applicant is reminded that any amendment of the teaching of the application regarding the antigen-specificity for any antibody changes the scope of the disclosure.

In addition, it is also noted the Preliminary Amendment, filed 04/06/2006, appears to be inconsistent with the specification as-filed in the international application, PCT/US04/24881.

Upon further consideration, given the national stage status of the instant application, the preliminary amendment should not have been entered because it introduced New Matter into the specification of PCT/US04/24881 as-filed.

12. Claims 12, 14-23 and 26-32 and newly added claims 33-36 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for detecting UTIs in a biological sample using monoclonal antibodies, does not reasonably provide enablement for correlating the result of detection with a disease associated with the measured UTIs. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

Applicant's arguments, filed 07/26/2007, have been fully considered but have not been found convincing essentially for the reasons of record.

In response to Applicant's argument that the claims describe a method of assaying a biological fluid for UTI not for disease as characterized by measuring UTIs, it is noted that the only disclosed utility for the assay as claimed is for detecting the presence of UTIs that are characteristic of infection and/or inflammation (see page 9, lines 33-34 of specification).

As noted previously in regards to the lack of sufficient correlation of UTI to any specific disease and Applicant's assertion that "more precise correlation of UTIs with specific diseases has yet to be determined" (see page 17 of Applicant Arguments/Remarks Made in an Amendment, filed 07/26/2007), it would be an undue amount of experimentation to a person of skill to correlate the result of the assay as claimed to any specific disease as the only utility disclosed by the Applicant at the time of filing without sufficient guidance. As such, the specification, as-filed, is not enabled for a skilled artisan to use the present invention as claim.

Applicant's arguments have not been persuasive.

Therefore, the rejection of record is **maintained** for the reasons of record, as it applies to the amended and newly added claims. The rejection of record is incorporated by reference herein, as if reiterated in full.

13. Claims 12, 14-23 and 26-32 and newly added claims 33-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The following is a biological deposit rejection

Applicant's amendment, filed 07/26/2007, asserts that the hybridoma cell lines, ATCC 421-5D1 1.5G8.1E4, ATCC 421 -3G5.4C5.3B6, and ATCC 421-5G8.1A8.5C were deposited at the American Type Culture Collection, on July 28, 2006 and that the receipt confirms the deposited materials will be available once a U.S. Patent has issued.

However, this assertion does not satisfy the biological deposit rule under 37 CFR 1.801-1.809 which, in addition to the conditions under the Budapest Treaty, requires Applicant to assure that all restrictions imposed by the depositor on the availability to the public of the deposited material will be irrevocably removed upon the granting of a patent in U.S. patent applications.

There appear no assurances provided by Applicant.

Therefore, the rejection of record is maintained for the reasons of record, as it applies to the amended and newly added claims. The rejection of record is incorporated by reference herein, as if reiterated in full.

Claim Rejections - 35 USC § 102

14. Claims **12, 20-21** are rejected under 35 U.S.C. 102(b) as being anticipated by Papuashvili et al. (U.S. Patent 6,242,197, see entire document).

Applicant's arguments, filed 07/26/2007, have been fully considered but have not been found convincing essentially for the reasons of record.

In response to Applicant's argument asserting that Papuashvili's monoclonal antibody is not raised against the purified uristatin of the Applicant's, it is noted the claim limitation "produced from purified uristatin" is a product-by-process limitation which reads on the monoclonal antibody that is made by the process of immunizing the host animal with a purified uristatin. Since the reference teaches several monoclonal antibodies that bind to UTI, the same monoclonal antibody made raised against a purified uristatin would also be anticipated by the reference.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

With regard to the newly added claim limitation, "having no cross-reactivity to P-α-I and I-α-I pro-inhibitors", under the broadest reasonable interpretation, Papuashvili et al. still would anticipate the instant claims because the reference teaches a method of assaying for UTIs from urine or blood with a monoclonal antibody.

Though Papuashvili et al. is silent on the monoclonal antibody "having no cross-reactivity to P-α-I and I-α-I pro-inhibitors", given that monoclonal antibodies are highly specific, it would be inherent that the reference monoclonal antibody would not have cross-reactivity to P-α-I and I-α-I pro-inhibitors.

Since the Office does not have a laboratory to test the reference antibody, it is Applicant's burden to show that the reference antibody does have cross-reactivity to P-α-I and I-α-I pro-inhibitors.

There is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the subject matter is in fact inherent in the prior art reference. *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1377, 67 USPQ2d 1664, 1668 (Fed. Cir. 2003).

Applicant's arguments have not been persuasive.

Therefore, the rejection of record is maintained for the reasons of record, as it applies to the amended and newly added claims. The rejection of record is incorporated by reference herein, as if reiterated in full.

Conclusion

15. No claim is allowed

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon Wen whose telephone number is (571) 270-3064. The examiner can normally be reached on Monday-Thursday, 8:30AM-6:00PM, ALT. Friday, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571)272-0841. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sharon Wen, Ph.D.
Patent Examiner
September 26, 2007

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